


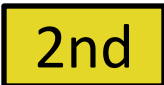

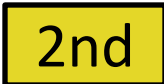

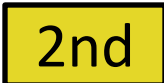







Calculator Workshop

TI-83 Introduction




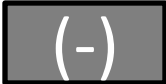
Getting Started: Part 1

- Key Color Code
 - 2nd Function: Upper Left Corner. 
 - Alpha: Directly below 2nd Function. 
- On Button: Bottom Left Corner. 
- Off Button:  
- Change Screen Contrast:
 - Increase:  
 - Decrease:  



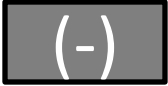

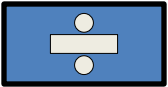

Getting Started: Part 2

- Quit: Under “Mode”, next to 2nd Function
 - Returns you to the main screen.  
- Clear: Under Arrow Buttons.
 - Clears away your entire entry. 
- Delete: Right of “Mode”
 - Deletes the number/symbol the blinking cursor is on top of. 

Getting Started: Part 3

- Recall the last entry
 -  
- Recall the last answer.
 -  

Arithmetic

- Addition 
- Subtraction 
 - Not to be confused with: 
- Multiplication 
 - Displayed as * to avoid confusion with letter x
- Division 
 - Displayed as / to avoid confusion with addition
- Enter  means equal

Basic Operations: Fractions and Exponents

- Change a Decimal to a Fraction:

MATH

1

– Example: Change 0.375 to a fraction

0

.

3

7

5

MATH

1

- Exponents

– Squared: Left hand side, midway down.

x^2

– Cubed: Use the “MATH” button.

MATH

3

– Higher Order: Under “CLEAR”.

^

4

– Inverse: Above x-squared.

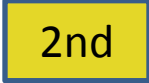

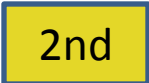
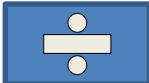
x^{-1}

Basic Operations: Roots

- Square Root 2nd x^2
- Find a Cube Root: MATH 4
- Find a Higher Order Root: MATH 5
 - Example: Find $\sqrt[6]{4096}$

6 MATH 5 4 0 9 6

Basic Operations: Constants

- Constants (pi, e)
 - Pi ($\pi \cong 3.141592654$):  
 - Useful because it helps you find the area and circumference of circles.
 - e ($e \cong 2.718281828$):  
 - Useful because it results in a more accurate answer with fewer keystrokes

Basic Operations: Functions

- Functions (log, ln, e^x , EE)

- LOG/LN: Left hand side. **LOG** or **LN**

- e^x : **2nd** **LN**

- Scientific Notation: Denoted as “EE”. **2nd** **,**

- Example: Find 2×10^{14}

2 **2nd** **,** **1** **4**

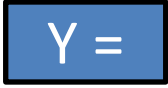








- The answer on the screen reads: 2E14. This E does **NOT** mean “error”, it means “10 to the Power”.

IMPORTANT FOR 350 STUDENTS!


Order of Operations

- Calculator's Interpretation $()$, $*/$, $+/-$
 - Reads left to right
 - Remember PEMDAS
 - $()$ first, then exponents, then $*/$, then $+/-$
- Difference between $(-5)^2$ and -5^2
 - $(-5)^2 = 25$ The exponent effects both the negative sign and the 5
 - $-5^2 = -25$ The exponent effects ONLY the 5

Graphing: Part 1

- The top row of buttons related to graphing.
- The **Y =** button: Far left hand side. 
- Entering equations: Use  for X
 - Enter $Y = 2X + 1$:     
- Graphing: Far right hand side. 
- Tracing: Left of graph button. 

Graphing: Part 2



- Changing Frame Limits
 - Window Button: Located right of Y=. 
 - Arrow down to which parameter you want to change, and edit that entry.

- Zooming In and Out

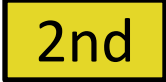

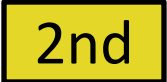

- Zoom Button: Located right of Window. 

- Zoom In:   

- Zoom Out:   

- Zoom Standard:  

Graphing: Part 3

- Tables of Graph Data
 - Table Setup:  
 - Select Specific Values of x:
 - On Table Setup, change **Indpnt** from “Auto” to “Ask”
 - Table View:  
 - If **Indpnt** has been changed from “Auto” to “Ask”, you must enter x values on this screen.

Useful Links

- <http://faculty.nwfsc.edu/web/math/mathlab/TI-83%20Plus%20Handout.pdf>
- <http://www.prenhall.com/divisions/esm/app/graphing/ti83/>
- <http://education.ti.com/guidebooks/graphing/83/83gb.pdf>